

# C-SAT-BOX - Surge protection device



2880561  
<https://www.phoenixcontact.com/us/products/2880561>

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Surge protection for antenna distributors in satellite systems. IN and OUT via F connectors, 5 channels for signals from SAT systems and terrestrial antennas, ground connection on the outside of the housing.

## Your advantages

- No signal interference with optimum transmission properties
- Space-saving, thanks to the compact design
- Protection of digital and analog signals with universal protective circuit
- Easy installation with surface mounting

## Commercial data

Item number	2880561
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL25
Product key	CL3315
Catalog page	Page 204 (C-4-2019)
GTIN	4046356048941
Weight per piece (including packing)	277.3 g
Weight per piece (excluding packing)	228.24 g
Customs tariff number	85363010
Country of origin	DE

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## Technical data

### Product properties

Product type	Surge protection for transceiver systems
IEC test classification	B2
	C1
	C2
	C3
	D1
Type	Housing for surface mounting
Number of positions	5

### Data management status

Article revision	08
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### Insulation characteristics

Overvoltage category	II
Pollution degree	2

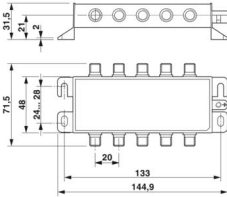
### Electrical properties

Nominal voltage $U_N$	14 V DC (vertical)
	18 V DC (horizontal)

### Connection data

Connection method	F connector
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### Dimensions

Dimensional drawing	
Width	144.9 mm
Height	31.5 mm
Depth	71.5 mm

### Material specifications

Color	silver-colored
Housing material	Zinc die-cast
Housing surface material	Ni
Inner conductor surface material	Sn
Insulation body material	PP
Spring contact material	CuSn

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## Protective circuit

Direction of action	Line-Shield/Earth Ground
Maximum continuous voltage $U_C$	20 V DC
Rated current	400 mA
Operating effective current $I_C$ at $U_C$	$\leq 2 \mu\text{A}$ (per channel)
Residual current $I_{PE}$	$\leq 2 \mu\text{A}$ (per channel)
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (line-shield)	2.5 kA
Pulse discharge current $I_{imp}$ (10/350) $\mu\text{s}$	0.5 kA
Total discharge current $I_{total}$ (8/20) $\mu\text{s}$	10 kA
Max. discharge current $I_{max}$ (8/20) $\mu\text{s}$ maximum (line-shield)	2.5 kA
Nominal pulse current $I_{an}$ (10/1000) $\mu\text{s}$ (line-shield)	100 A
Nominal pulse current $I_{an}$ (10/700) $\mu\text{s}$ (line-shield)	100 A
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-shield) static	$\leq 80 \text{ V}$
Voltage protection level $U_p$ (line-shield)	$\leq 500 \text{ V}$ (C2 - 4 kV / 2 kA) $\leq 120 \text{ V}$ (C3 - 100 A)
Response time $t_A$ (line-shield)	$\leq 1 \text{ ns}$
Input attenuation $a_E$ , asym.	$\leq 1 \text{ dB}$ (5 MHz ... 2.2 GHz / 75 $\Omega$ ) $\leq 3 \text{ dB}$ (5 MHz ... 2,4 GHz / 75 $\Omega$ )
Near-end crosstalk attenuation	$\geq 40 \text{ dB}$ (5 MHz ... 2,4 GHz / 75 $\Omega$ )
Cut-off frequency $f_g$ (3 dB), asym. (shield) in 75 $\Omega$ system	$> 2.5 \text{ GHz}$
Frequency range	47 MHz ... 2.5 GHz
Inductivity in series	typ. 5 $\mu\text{H}$ ( $f = 10 \text{ kHz}$ )
Resistance per path	3.3 $\Omega \pm 20 \%$
Surge protection fault message	none
Impulse durability (line-shield)	B2 - 4 kV / 100 A C1 - 1 kV / 500 A C2 - 4 kV/2 kA C3 - 100 A D1 - 500 A
Impulse durability (shield-ground)	C2 - 10 kA D1 - 5 kA

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP40
Ambient temperature (operation)	-25 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	$\leq 4000 \text{ m}$ (amsl)

## Standards and regulations

Standards/specifications	IEC 61643-21
Note	2000 + A1:2008 + A2:2012
Standards/specifications	EN 61643-21

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Note	2013
Standards/specifications	EN 50083-2
Note	CLASS-A

## Mounting

Mounting type	Screw mounting
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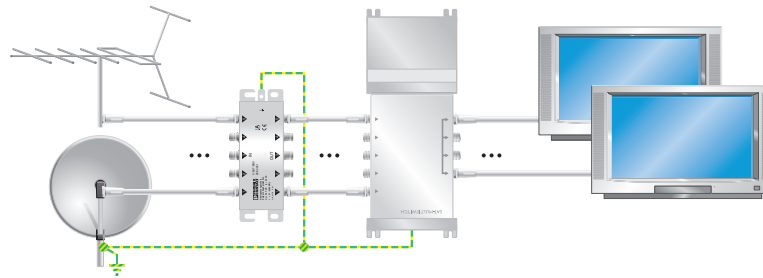
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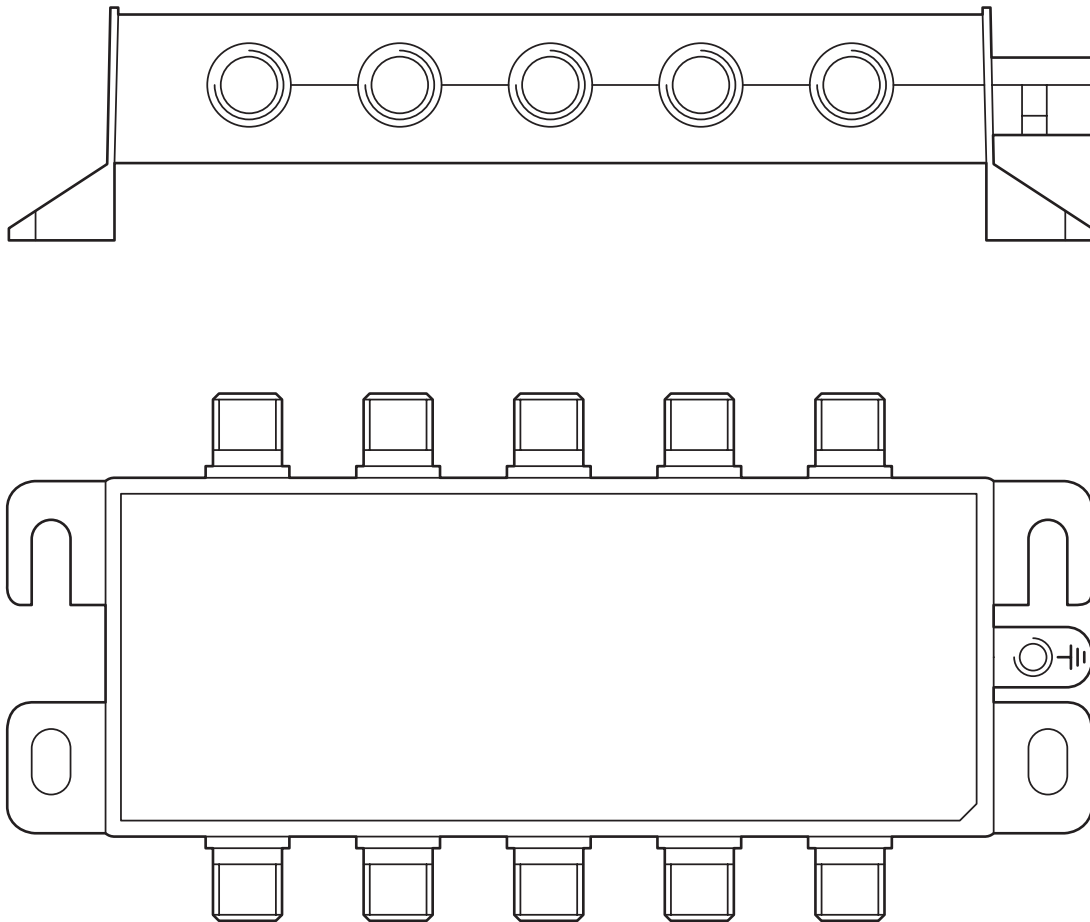


## Drawings

Application drawing



Product drawing



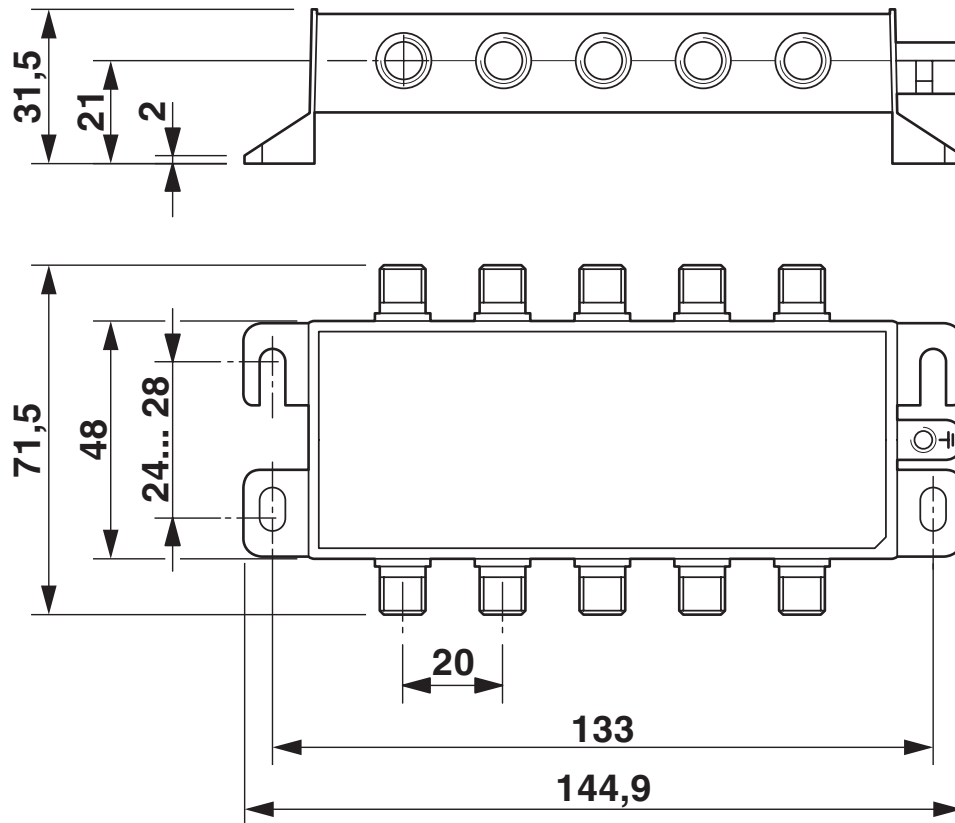
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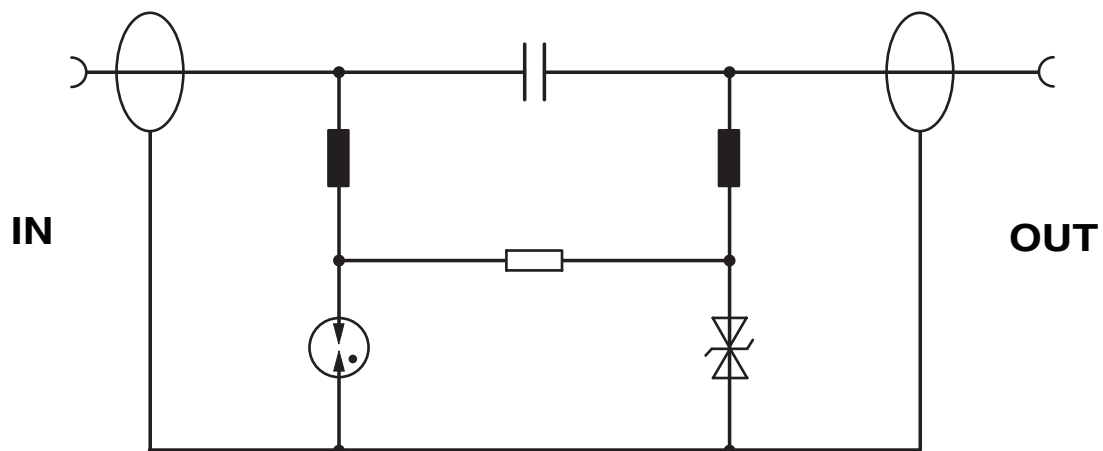
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Dimensional drawing



Circuit diagram



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## Approvals

📄 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2880561>



**EAC**

Approval ID: RU C-DE.\*09.B.00169

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## Classifications

### ECLASS

ECLASS-11.0	27130807
ECLASS-13.0	27171504

### ETIM

ETIM 9.0	EC000943
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### UNSPSC

UNSPSC 21.0	39121600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	8c5983bc-fcc9-4ccc-a93d-78435e28f3a9

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## Accessories

### KBL-SAT/20 - Cable

2880985

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Connecting cable 20 cm with F connector, male connector.

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